



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**RBW1805G01631-3G**  
**Job Sheet 172690**



**Part No:** RBW1805G01631-3G **Job Qty:** 3 ea

**Part Name:** Mast Vibration Absorber Installation Tool



**Part Weight:** 0 lbs

**Status:** Scheduled

**Priority:** Medium

**Job Created:** 2/21/18

**Job Tracking No:**

**Due Date:** 2/28/18

**Created By:** Michelle Gagnon-Donovan

**Type:** SOLD

**Description:**

**Note:** DWG RBW1805G01631-3G REV 2 IPP REV A 18.02.16 NEW ISSUE FK VERIFY DP

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |          |
| 90    | Start up Operation | 3 Ea  |            | 2/27/18  | 0.00      | 0.00    | Start Up Small Fab-4  |           | SB       |
| 100   | Small Fab          | 3 pcs |            | 2/28/18  | 0.00      | 1.50    | Small Fab-9           |           | MLB      |
| 110   | QC                 | 3 pcs |            | 2/28/18  | 0.00      | 0.00    | QC5                   |           | SB       |
| 130   | Packaging          | 3 pcs |            | 2/28/18  | 0.00      | 0.00    | Packaging3-2          | DAS       |          |
| 140   | QC21-FG            | 3 Ea  |            | 2/28/18  | 0.00      | 0.00    | QC21                  | 21        |          |

Part Op 100 - 1- Assemble as per DWG RBW1805G01631-3G  
Descriptions: 130 - Identify and Stock

APR 27 2018

### Job BOM

| Part / Item         | Component Name    | Quantity    | Operation             | Container |
|---------------------|-------------------|-------------|-----------------------|-----------|
| 91847A565           | TBD               | 3 (1 ea)    | 90-Start up Operation |           |
| RBW1805G01631-3G-1  | Handle Weldment   | 3 Ea (1 ea) | 90-Start up Operation | \$056470  |
| RBW1805G01631-3G-11 | Handle Bolt       | 6 Ea (2 ea) | 90-Start up Operation | \$065792  |
| RBW1805G01631-3G-7  | Installation Base | 3 Ea (1 ea) | 90-Start up Operation | \$064209  |
| RBW1805G01631-3G-9  | Threaded Spacer   | 3 Ea (1 ea) | 90-Start up Operation | \$065559  |

### Job Allocations

| Operation             | Component Part      | Required | Inventory | Allocated |
|-----------------------|---------------------|----------|-----------|-----------|
| 90-Start up Operation | 91847A565           | 3        | 0         | 0         |
|                       | RBW1805G01631-3G-1  | 3        | 0         | 0         |
|                       | RBW1805G01631-3G-11 | 6        | 0         | 0         |
|                       | RBW1805G01631-3G-7  | 3        | 0         | 0         |
|                       | RBW1805G01631-3G-9  | 3        | 0         | 0         |

### Part Specifications

Specifications could not be found.

Plex 2/21/18 11:49 AM Dart.Gagnon.Michelle



**Container No: S065941**



**Part: RBW1805G01631-3G**

**Job No: 172690**

**Serial No/Batch: S065941**

**Revision: 2**

**Inspector:**

**Dart Aerospace Ltd.**  
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Date: 04/27/18

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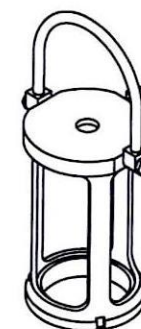
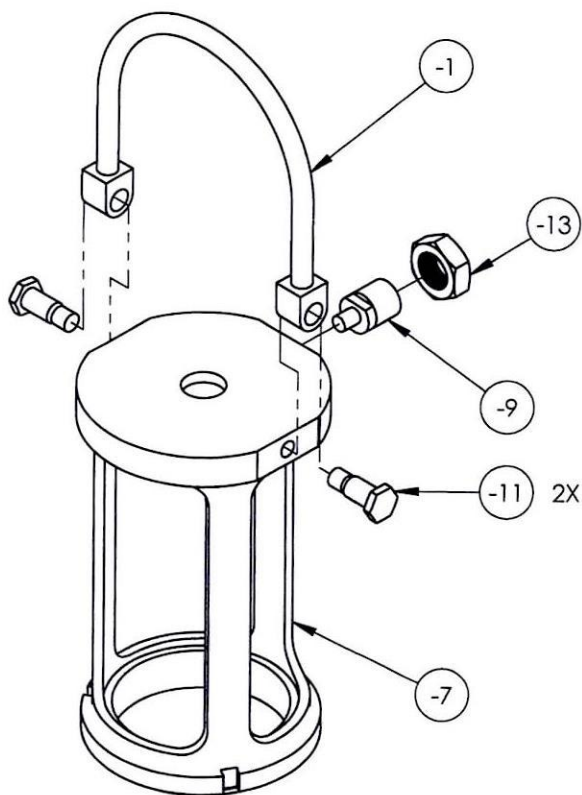
| REVISIONS |         |                                                                                                                                                                                                                                                                                      |          |         |          |
|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                                                                                                                                                                                                                                                          | DATE     | INITIAL | APPROVED |
| 2         | 15-0286 | -3 DELETED THREADED ENDS AND DIMS 2X 3/8-16 UNC AND 2X .50. -5 CHD HOLE WAS 3/8-16 UNC $\varnothing$ .750 IS $\varnothing$ .472 $\varnothing$ .75 S.F. -3. -9 ADDED MISSING DIM .748, ADDED MIN. THREAD RELIEF, -11 DELETED DIM ( $\varnothing$ .44) ADDED DIM ( $\varnothing$ .33). | 9/2/2015 | RJC     | JAG      |

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WITHOUT NOTICE  
WORK ORDER

NO. 172690

FEB 21 2018



NOTE:

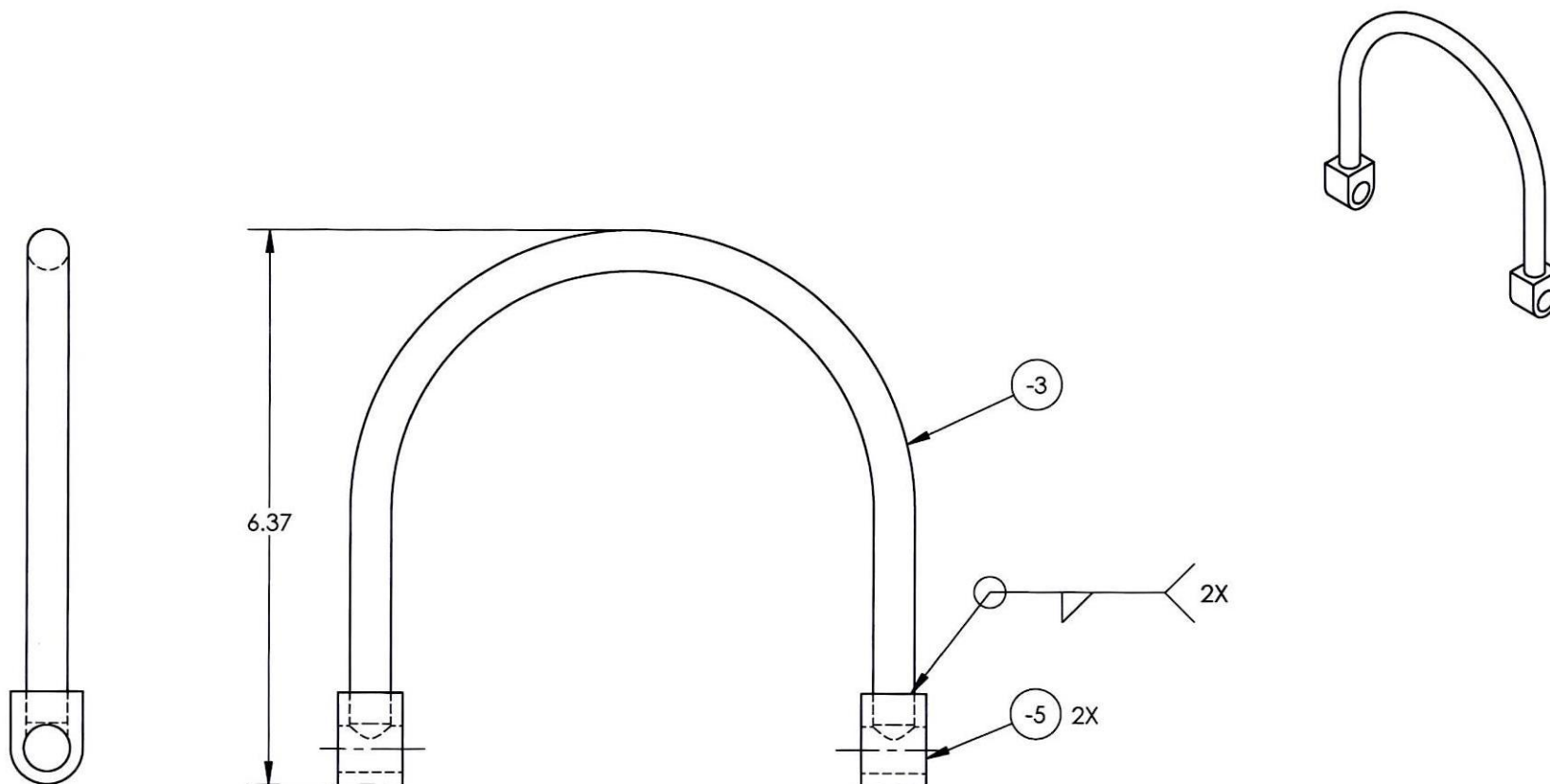
1. REF. AUGUSTA T/N: 3G1805G01631.
2. ALSO PART OF KIT RBW1805G01431-3G, REF. AUGUSTA T/N: 3G1805G01431.

| ASSY QTY | ASSY QTY | B/O | Part # | UNIT QTY | Description       | Material | B/O INFORMATION OR SPECIFICATIONS      | PG. |
|----------|----------|-----|--------|----------|-------------------|----------|----------------------------------------|-----|
|          | X        |     | -1     | 1        | HANDLE WELDMENT   |          |                                        | 2   |
|          | 1        |     | -3     |          | HANDLE            | S.S.     |                                        | 3   |
|          | 2        |     | -5     |          | HANDLE END        | S.S.     |                                        | 4   |
|          |          |     | -7     | 1        | INSTALLATION BASE | S.S.     |                                        | 5   |
|          |          |     | -9     | 1        | THREADED SPACER   | S.S.     |                                        | 6   |
|          |          |     | -11    | 2        | HANDLE BOLT       | S.S.     |                                        | 7   |
|          |          | B/O | -13    | 1        | HEX NUT           | S.S.     | 7/8-14 UNF (MCMMASTER-CARR #91847A565) | 1   |
| ASSY     | -1       |     |        |          |                   |          |                                        |     |

|                                                                                                                                    |                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>DART AEROSPACE</b>                                                                                                              |                                                                                                             |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                                                                                              |                                                                                                             |
| DWG NO.<br><b>RBW1805G01631-3G</b>                                                                                                 | REV<br><b>2</b>                                                                                             |
| MAT'L<br>UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .005 FRACTIONS ± 1/8<br>.XX ± .01 ANGLES ± 5°<br>.X ± .1 | DRAWN BY: <b>SMITH</b><br>APPROVED: <i>D Weil</i><br>HEAT TREAT<br>FINISH<br>SPEC<br>USED ON MODEL<br>AW139 |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R<br>2. DIMENSIONAL LIMITS APPLY AFTER PLATING                                       |                                                                                                             |
| SCALE<br><b>1:4</b>                                                                                                                | DATE<br><b>4/29/2013</b>                                                                                    |
| SHEET 1 OF 7                                                                                                                       |                                                                                                             |

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| REVISIONS |     |             |  |  |      |         |          |
|-----------|-----|-------------|--|--|------|---------|----------|
| REV       | ECR | DESCRIPTION |  |  | DATE | INITIAL | APPROVED |



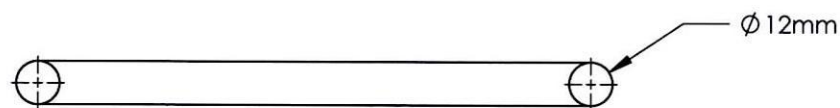
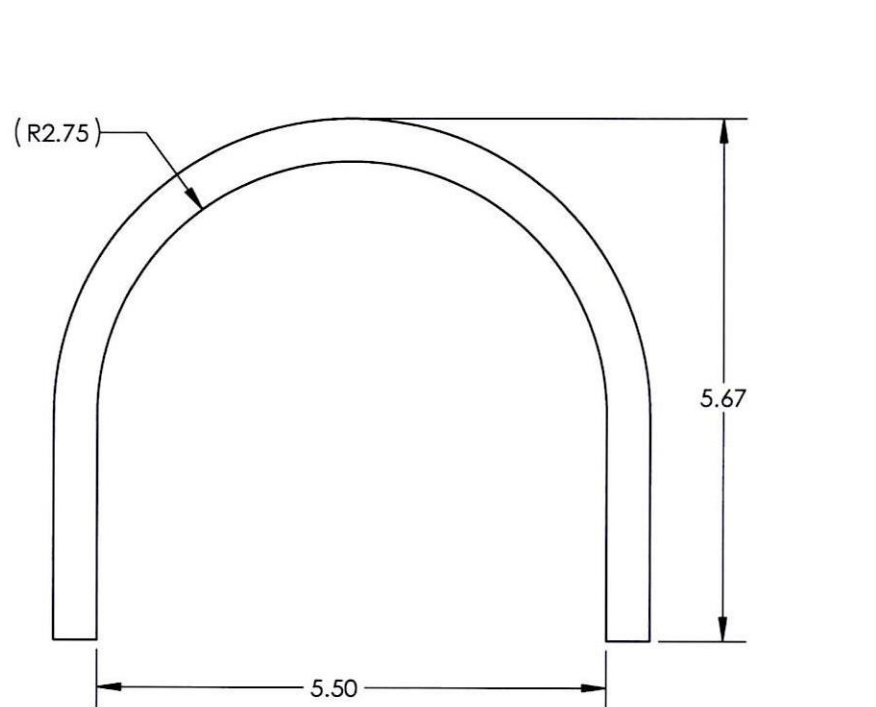
(-1)  
HANDLE WELDMENT

|                                                                                                                                    |                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>DART<br/>AEROSPACE</b>                                                                                                          |                                                                                                                    |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                                                                                              |                                                                                                                    |
| DWG NO.<br><b>RBW1805G01631-3G-1</b>                                                                                               | REV<br><b>2</b>                                                                                                    |
| MAT'L<br>UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .005 FRACTIONS ± 1/8<br>.XX ± .01 ANGLES ± 5°<br>.X ± .1 | DRAWN BY: <b>SMITH</b><br>APPROVED: <i>D Weil</i><br>HEAT TREAT<br>FINISH<br>SPEC<br>USED ON MODEL<br><b>AW139</b> |
| 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R<br>2. DIMENSIONAL LIMITS APPLY AFTER PLATING                                          |                                                                                                                    |
| SCALE<br><b>1:2</b>                                                                                                                | DATE<br><b>4/29/2013</b>                                                                                           |
| SHEET 2 OF 7                                                                                                                       |                                                                                                                    |



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|-----------|---------|-------------------------------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                                 | DATE     | INITIAL | APPROVED |
| 2         | 15-0286 | -3 DELETED THREADED ENDS AND DIMS 2X 3/8-16 UNC AND 2X .50. | 9/2/2015 | RJC     | JAG      |



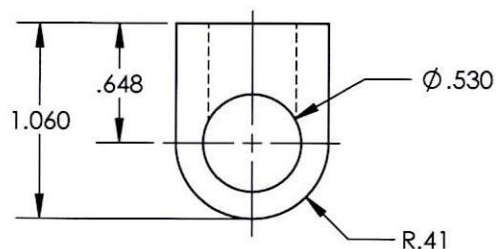
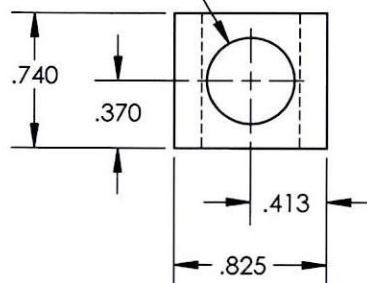
(-3)  
HANDLE

|                                                                                                             |                                                                                                      |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>DART<br/>AEROSPACE</b>                                                                                   |                                                                                                      |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                                                                       |                                                                                                      |
| DWG NO.<br><b>RBW1805G01 631-3G-3</b>                                                                       | REV<br><b>2</b>                                                                                      |
| MAT'L S.S.<br>UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .010<br>.XX ± .03<br>.X ± .1 | DRAWN BY: SMITH<br>APPROVED: <i>D Weil</i><br>HEAT TREAT<br>FINISH<br>SPEC<br>USED ON MODEL<br>AW139 |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R<br>2. DIMENSIONAL LIMITS APPLY AFTER PLATING                |                                                                                                      |
| SCALE<br><b>1:2</b>                                                                                         | DATE<br><b>4/29/2013</b>                                                                             |
| SHEET 3 OF 7                                                                                                |                                                                                                      |

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|-----------|---------|----------------------------------------------------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                                                      | DATE     | INITIAL | APPROVED |
| 2         | 15-0286 | -5 CH'D HOLE WAS 3/8-16 UNC $\nabla$ .750 IS $\nabla$ .472 $\nabla$ .75 S.F. -3. | 9/2/2015 | RJC     | JAG      |

$\nabla$  .472  $\nabla$  .75  
S.F. -3



(-5)

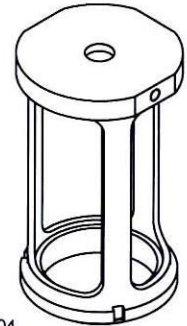
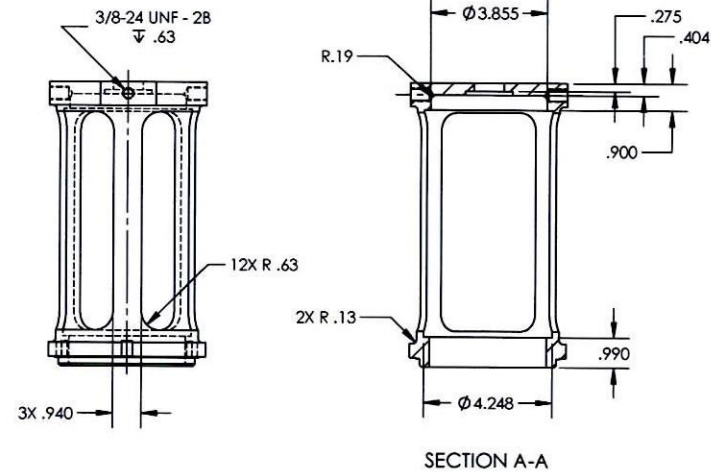
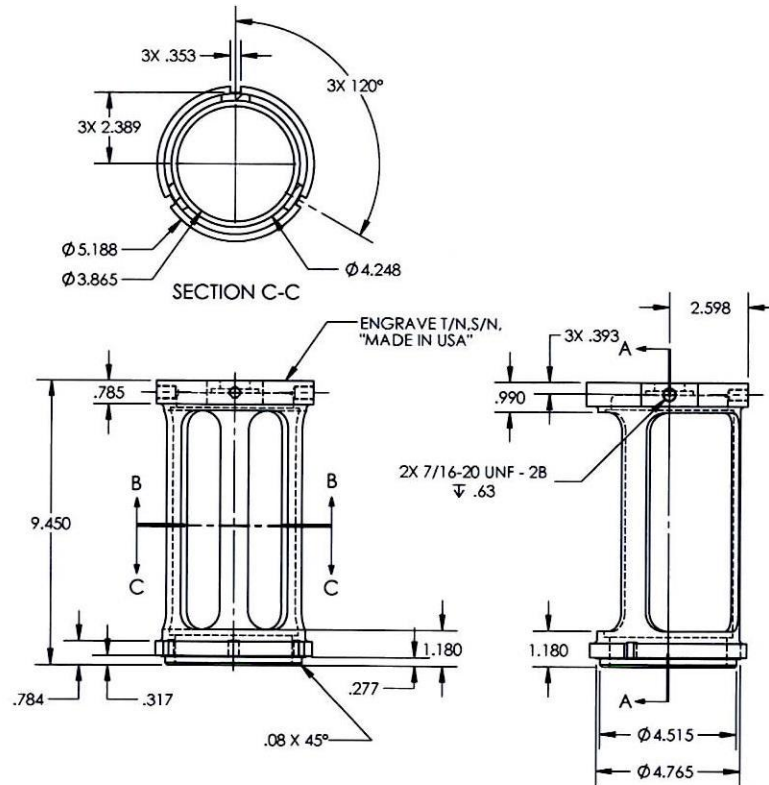
HANDLE END



|                                                        |                          |
|--------------------------------------------------------|--------------------------|
| <b>DART<br/>AEROSPACE</b>                              |                          |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                  |                          |
| DWG NO.<br><b>RBW1805G01631-3G-5</b>                   | REV<br><b>2</b>          |
| MAT'L S.S.                                             | DRAWN BY: <b>SMITH</b>   |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES | APPROVED <i>D Weil</i>   |
| .XXX $\pm$ .005                                        | HEAT                     |
| .XX $\pm$ .01                                          | TREAT                    |
| .X $\pm$ .1                                            | FINISH                   |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R        | SPEC                     |
| 2. DIMENSIONAL LIMITS APPLY AFTER<br>PLATING           | USED ON MODEL            |
|                                                        | <b>AW139</b>             |
| SCALE<br><b>1:1</b>                                    | DATE<br><b>4/29/2013</b> |
|                                                        | SHEET 4 OF 7             |

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|-----------|-----|-------------|------|----------|
| REV       | ECR | DESCRIPTION | DATE | INITIAL  |
|           |     |             |      | APPROVED |

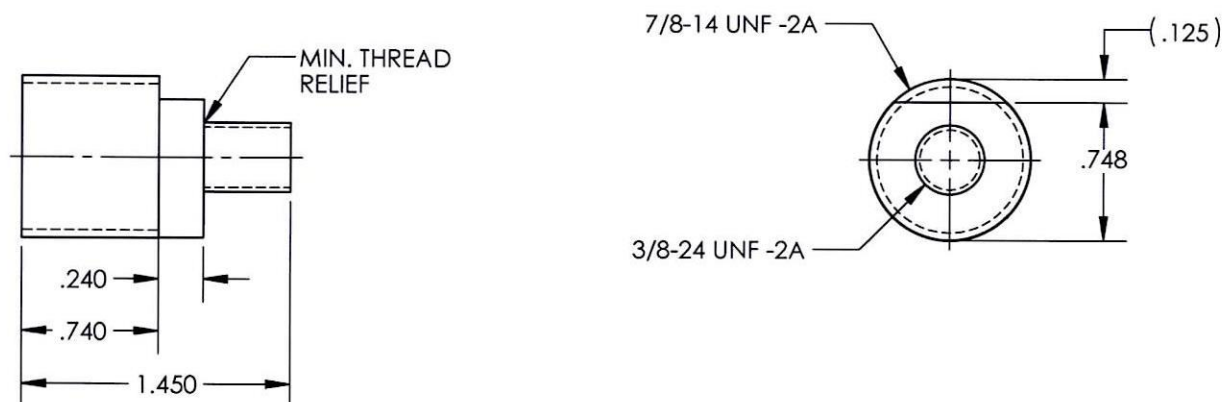


⑦  
INSTALLATION BASE

|                                                        |                           |
|--------------------------------------------------------|---------------------------|
| <b>DART</b><br>AEROSPACE                               |                           |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                  |                           |
| DWG NO.<br><b>RBW1805G01631-3G-7</b>                   | REV<br><b>2</b>           |
| MATL. S.S.                                             | DRAWN BY: <b>SMITH</b>    |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES | APPROVED: <i>D. Smith</i> |
| .XXX ± .005                                            | TEST                      |
| .XX ± .01                                              | DRAW                      |
| .X ± .1                                                | FINISH                    |
| 1. BREAK ALL SHARP EDGES .015 ± .005                   | SPEC                      |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING              | USED ON MODEL             |
| SCALE<br><b>1:4</b>                                    | DATE<br><b>4/29/2013</b>  |
| SHEET 5 OF 7                                           |                           |

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|-----------|---------|------------------------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                          | DATE     | INITIAL | APPROVED |
| 2         | 15-0286 | -9 ADDED MISSING DIM .748, ADDED MIN. THREAD RELIEF. | 9/2/2015 | RJC     | JAG      |



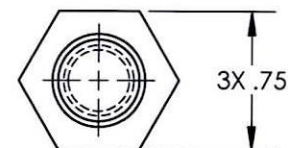
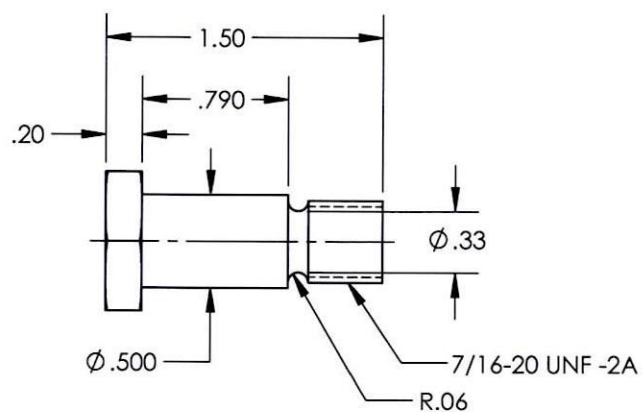
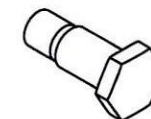
(-9)  
THREADED SPACER

|                                                                                                                                         |                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>DART<br/>AEROSPACE</b>                                                                                                               |                                                                                   |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                                                                                                   |                                                                                   |
| DWG NO.<br><b>RBW1805G01631-3G-9</b>                                                                                                    | REV<br><b>2</b>                                                                   |
| MAT'L S.S.<br>UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .005 FRACTIONS ± 1/8<br>.XX ± .01 ANGLES ± 5°<br>.X ± .1 | DRAWN BY: <b>SMITH</b><br>APPROVED: <i>D Weil</i><br>HEAT TREAT<br>FINISH<br>SPEC |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R<br>2. DIMENSIONAL LIMITS APPLY AFTER<br>PLATING                                         | USED ON MODEL<br><b>AW139</b>                                                     |
| SCALE<br><b>1:1</b>                                                                                                                     | DATE<br><b>4/25/2013</b>                                                          |
| SHEET 6 OF 7                                                                                                                            |                                                                                   |



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|-----------|---------|-----------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                             | DATE     | INITIAL | APPROVED |
| 2         | 15-0286 | -9 DELETED DIM (Ø.44) ADDED DIM (Ø.33). | 9/2/2015 | RJC     | JAG      |



(11)

HANDLE BOLT

|                                                        |                             |
|--------------------------------------------------------|-----------------------------|
| <b>DART<br/>AEROSPACE</b>                              |                             |
| TITLE<br><b>MVA INSTALLATION TOOL</b>                  |                             |
| DWG NO.<br><b>RBW1805G01631-3G-11</b>                  | REV<br><b>2</b>             |
| MAT'L S.S.                                             | DRAWN BY: <b>SMITH</b>      |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES | APPROVED <i>D Weil</i>      |
| .XXX ± .005 FRACTIONS ± 1/8                            | HEAT                        |
| .XX ± .01 ANGLES ± 5°                                  | TREAT                       |
| .X ± .1                                                | FINISH                      |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R        | SPEC                        |
| 2. DIMENSIONAL LIMITS APPLY AFTER<br>PLATING           | USED ON MODEL               |
|                                                        | <b>AW139</b>                |
| SCALE 1:1                                              | DATE 4/25/2013 SHEET 7 OF 7 |